This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A gas distribution plate for use in a semiconductor fabrication apparatus including a semiconductor processing chamber, the gas distribution plate comprising:

a plurality of drilled holes for passing process gases to the semiconductor processing chamber; and

a portion having a machined ceramic surface exposed to the process chemistry used in the semiconductor fabrication apparatus, wherein the portion of the gas distribution plate has substantially no micro-defects about 50 micrometers or greater, wherein the micro-defects are substantially eliminated by annealing the portion, subsequent to machining the ceramic surface, wherein the plurality of drilled holes pass through the machined ceramic surface.

2. (Currently Amended) A gas distribution plate as recited in claim 1 wherein micro-defects [within the plurality of drilled holes] are substantially eliminated before implementation within the semiconductor fabrication apparatus.

3. (Cancelled).

4. (Original) A gas distribution plate as recited in claim 1 wherein the portion includes at least one surface of the distribution plate which is exposed to the internal regions of the semiconductor processing chamber.

5. (Previously Amended) A gas distribution plate as recited in claim 1 wherein, during its operation, the gas distribution plate produces less than 0.1 particle defects per square centimeter for a wafer processed in the semiconductor fabrication apparatus over the entire operating life of the gas distribution plate.

6. (Original) A gas distribution plate as recited in claim 1 wherein the gas distribution plate does not substantially diminish wafer yield over the entire operating life of the gas distribution plate.

7. (Previously Amended) A gas distribution plate as recited in claim 6 further comprising at least one distribution channel, wherein the at least one distribution channel is machined to a back face of the gas distribution plate.

8. (Cancelled).

9. (Cancelled).

10. (Currently Amended) A gas distribution plate as recited in claim [9] 1 wherein the plate includes one of Si_3N_4, Al_2O_3, AlN and SiC.

11. (Currently Amended) A gas distribution plate as recited in claim [9] 1 wherein the ceramic [material] surface is included in a portion of the gas distribution plate which faces the semiconductor processing chamber.

12. (Currently Amended) A plasma-based fabrication apparatus, comprising:

a plasma chamber that receives process gases and forms a plasma therefrom; and

a gas distribution plate including a plurality of holes that supply the process gases into said plasma chamber, a portion of said gas distribution plate having a machined ceramic surface and being exposed to the process chemistry used in said plasma chamber, wherein the portion of the gas distribution plate has substantially no micro-defects about 50 micrometers or greater and wherein said gas distribution plate is pretreated by [heating] annealing at a controlled temperature between about 1500 degrees Celsius to 1600 degrees Celsius for a prolonged time, subsequent to machining said ceramic surface.

13. (Previously Amended) A plasma-based fabrication apparatus as recited in claim 12 wherein said plasma-based fabrication apparatus fabricates semiconductor devices.

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14. (Previously Amended) A plasma-based fabrication apparatus as recited in claim 12 wherein said plasma-based fabrication apparatus is a semiconductor etch machine.

15-17. (Cancelled).

18. (Previously Amended) A plasma-based fabrication apparatus as recited in claim 12 wherein the prolonged time is from about 5 to 10 hours.

19-39. (Cancelled).

40. (Currently Amended) A plasma-based fabrication apparatus, as recited in claim 12, wherein the plurality of holes are a plurality of drilled holes, wherein the pretreating by [heating] annealing is done after formation of the plurality of drilled holes.

41-42. (Cancelled).

43. (New) A plasma-based fabrication apparatus, as recited in claim 12 wherein the plate includes one of Si_3N_4, Al_2O_3 , AlN and SiC.